

Abstract

Power supply noise affects the performance of many amplifier circuits. Power supply noise rejection circuits are typically used in conjunction with amplifier circuits to reduce the effects of the noise. Unfortunately, the main issue with a transimpedance amplifier (TIA) is that it has a single input port and a single output port, and the output ports are often required to be of a differential type in order to interface with a differential input post amplifier circuit. As a result, the conversion from single input port operation to a dual input port configuration for differential operation is often the cause of poor power supply noise rejection. A circuit is thus provided that overcomes the limitations in the prior art by providing a differential TIA for use with a filter circuit and differential amplifier that overcomes the limitations of the prior art.